

IN THE CLAIMS:

Please amend the claims as follows:

60. (Currently Amended) A subterranean water sump structure comprising:
a substantially water impermeable member which is adapted, in use, to collect rainfall or other precipitation from above the ground and trap the water below the ground; [and]

at least one heat exchange pipe for carrying a heat exchange fluid and located, in use, so as to pass through water trapped by the impermeable member, primary particulate material through which said at least one heat exchange pipe passes, said primary particulate material having primary particles and being overlaid by a water permeable layer of secondary particulate material having secondary particles; and

wherein the size of the secondary particles is greater than the size of the primary particles.

61. (Original) The structure as claimed in Claim 60, in which the structure further comprises a ground trench lined by the water impermeable member.

62. (Original) The structure as claimed in Claim 60, in which the impermeable member comprises a flexible membrane.

63. (Original) The structure as claimed in Claim 60, in which the impermeable member comprises a rigid trough member.

64. (Original) The structure as claimed in Claim 63, in which the trough member is formed from a material having a high thermal conductivity.

65. (Cancelled)

66. (Currently Amended) The structure as claimed in Claim [65] 60, in which the primary particulate material comprises crushed rock.

67. (Cancelled).

68. (Currently amended) The structure as claimed in Claim [67] 60, in which the secondary particulate material comprises crushed rock.

69. (Cancelled).

70. (Original) The structure as claimed in Claim 60, in which a water permeable wear surface is formed above the water impermeable member.

71. (Currently amended) The structure as claimed in Claim [67] 60, in which a water permeable wear surface is formed over the layer of secondary particulate material.

72. (Original) The structure as claimed in Claim 70, in which the permeable wear surface comprises a pavement structure.

73. (Original) The structure as claimed in Claim 60, in which the at least one heat exchange pipe comprises a plurality of heat exchange pipes.

74. (Original) The structure as claimed in Claim 73, in which the pipes are mutually spaced.

75. (Original) The structure as claimed in Claim 60, in which the at least one heat exchange pipe is buried approximately 1.5 meters below the surface of the ground in use.

76. (Original) The structure as claimed in Claim 60, further comprising at least one diverter member positioned so as direct water to be trapped by the impermeable member in use.

77. (Original) The structure as claimed in Claim 76, in which the at least one diverting member comprises a sheet of water impermeable membrane arranged to funnel water into the structure.

78. (Original) The structure as claimed in Claim 60, further comprising a unidirectionally water permeable layer positioned to prevent evaporation of trapped water.

79. (Original) The structure as claimed in Claim 78, in which the unidirectionally water permeable layer comprises a fabric.

80. (Cancelled).

81. (Currently Amended) A heat pump system incorporating a structure of claim 60 [or claim 80].

82. (Original) A building which is climate-controlled by a heat pump system according to Claim 81.

83. (Currently Amended) A method of forming a subterranean water sump structure, comprising the steps of:

providing a substantially water impermeable member for collecting rainfall or other precipitation from above the ground and trapping it below the ground;

providing at least one heat exchange [pipes] pipe for carrying a heat exchange fluid; [and]

passing the at least one heat exchange pipe through an area in which water collected, in use, is trapped by the impermeable member

filling the structure through which the at least one heat exchange pipe passes with primary particulate material having primary particles; and

overlying said primary particulate material with a water permeable layer of secondary particulate material having secondary particles, wherein the size of the secondary particles is greater than the size of the primary particles.

84. (Original) The method as claimed in Claim 83, in which the structure is formed by excavating a ground trench.

85. (Cancelled).

86. (Cancelled).

87. (Original) The method as claimed in Claim 83, further comprising the step of positioning one or more diverter members for directing water to be trapped by the impermeable member in use.

88. (Original) A method as claimed in 83, further comprising the step of providing a unidirectionally water permeable membrane to prevent evaporation of trapped water.